1. - 147. (Cancelled)

148. (Previously presented) A method of operating a server system and associated Automated Teller Machines, ATMs, comprising:

a) using the server system to deliver, to a monitor intelligent agent, Monitor Agent,

i) a list of ATMs, and

ii) a diagnostic computer program;

b) causing the Monitor Agent to visit the ATMs on the list in sequence and, at each ATM;

i) deliver the diagnostic computer program to the ATM;

ii) receive and store results of the diagnostic computer program after the ATM runs the program; and

iii) return to the server.

149. (Previously presented) A method of operating a server system and associated Automated Teller Machines, ATMs, comprising:

a) using the server system to deliver, to a monitor intelligent agent, Monitor Agent,

i) a list of ATMs, and

ii) a diagnostic computer program;

b) causing the Monitor Agent to visit the ATMs on the

list in sequence and, at each ATM;

i) deliver the diagnostic computer program to the ATM;

ii) receive and store results of the diagnostic computer program after the ATM runs the program; and

iii) return to the server,

wherein the Monitor Agent comprises a data packet, having a format which includes

1) sender's network address,

2) addresses of the ATMs to be visited,

3) the diagnostic program, and

4) a register to contain data obtained from the ATM.

150. (Previously presented) A method of operating a server system and associated Automated Teller Machines, ATMs, comprising:

a) using the server system to deliver, to a monitor intelligent agent, Monitor Agent,

i) a list of ATMs, and

ii) a diagnostic computer program;

b) causing the Monitor Agent to visit the ATMs on the list in sequence and, at each ATM;

i) deliver the diagnostic computer program to the ATM;

ii) receive and store results of the diagnostic computer program after the ATM runs the program; and

iii) return to the server,

wherein the Monitor Agent comprises a data packet having a format which includes

1) sender's network address,

2) addresses of the ATMs to be visited,

3) the diagnostic program, and

4) a register to contain data obtained from the ATM;

c) using the server to deliver, to a service intelligent agent, Service Agent,

i) a list of ATMs,

ii) names of human service technicians, and

iii) technical abilities of the service technicians; and

d) causing the Service Agent to visit the ATMs on the list in sequence and, at each ATM, deliver;

i) the names of the human service technicians, and

ii) the technical abilities of the service technicians.

151. (Previously presented) Method according to claim 150, wherein the format of the Monitor Agent is the same as that of the Service Agent.

152. (Previously presented) Method according to claim 148, wherein different lists of ATMs are delivered to the Monitor Agent at different times.

153. (Previously presented) Method according to claim 152, wherein different diagnostic computer programs are delivered to the Monitor Agent at different times.

154. (Previously presented) A method of operating a server system and associated Automated Teller Machines, ATMs, comprising:

a) using the server system to deliver, to a monitor intelligent agent, Monitor Agent,

i) a list of ATMs, and

ii) a diagnostic computer program;

b) causing the Monitor Agent to visit the ATMs on the list in sequence and, at each ATM;

i) deliver the diagnostic computer program to the ATM;

ii) receive and store results of the diagnostic computer program after the ATM runs

the program; and

iii) return to the server,

wherein the Monitor Agent comprises a data packet, having a format which includes

1) sender's network address,

2) addresses of the ATMs to be visited,

3) the diagnostic program, and

4) a register to contain data obtained from the ATM;

c) using the server to deliver, to a service intelligent agent, Service Agent,

i) a list of ATMs,

ii) names of human service technicians, and

iii) technical abilities of the service technicians;

d) causing the Service Agent to visit the ATMs on the list in sequence and, at each ATM, deliver;

i) the names of the human service technicians, and

ii) the technical abilities of the service technicians;

e) at an ATM,

i) detecting an error condition;

ii) examining the abilities of the human

service technicians and selecting a technician to handle the error condition; and

iii) delivering to an alert intelligent agent, Alert Agent, an address of the technician selected, and causing the Alert Agent to contact the technician selected.

155. (Previously presented) Method according to claim 150, and further comprising:

e) at an ATM,

i) detecting an error condition;

ii) examining the abilities of the human service technicians and selecting a group of technicians to handle the error condition;

iii) ranking the technicians in the group;

iv) delivering to an alert intelligent agent, Alert Agent, addresses of the group of technicians, and causing the Alert Agent to contact the technicians in the group in rank order, until a technician is found who makes a specified response.

156. (Previously presented) Method according to claim 155, wherein the Alert Agent, Monitor Agent, and Service Agent are all

organized according to a common format.

157. (Previously presented) A method of operating a server system and associated Automated Teller Machines, ATMs, comprising:

a) sending a first type of intelligent agent from a server to a group of ATMs, which agent obtains diagnostic information from the ATMs;

b) sending a second type of intelligent agent from a server to a group of ATMs, which agent informs the ATMs of the identities of available service technicians; and

c) sending a third type of intelligent agent from a malfunctioning ATM to a service technician,

wherein all intelligent agents share a common data format.

158. (Previously presented) Method according to claim 157, wherein the first type of agent returns to the server, and delivers the diagnostic information to the server upon return.

159. (Previously presented) Method according to claim 157, wherein at least one ATM arranges the available technicians in rank order.

160. (Previously presented) A method of operating a server system and associated Automated Teller Machines, ATMs, comprising:

a) sending a first type of intelligent agent from a server to a group of ATMs, which agent obtains diagnostic information from the ATMs;

b) sending a second type of intelligent agent from a server to a group of ATMs, which agent informs the ATMs of the identities of available service technicians; and

c) sending a third type of intelligent agent from a malfunctioning ATM to a service technician,

wherein (1) all intelligent agents share a common data format, (2) at least one ATM arranges the available technicians in rank order, and (3) the malfunctioning ATM causes the third type of agent to contact available technicians according to the rank order.

161. (Previously presented) Method according to claim 160, wherein the third type of agent stops contacting technicians when a specified response is obtained from technicians contacted.

162. (Previously presented) A system, comprising:

a) a server system and a group of associated Automated Teller Machines, ATMs;

b) means for

i) transferring from the server system to a monitor intelligent agent, Monitor Agent,

A) a list of ATMs and

B) a diagnostic computer program; and

ii) causing the Monitor Agent to visit the ATMs on the list in sequence and, at each ATM

A) delivering the diagnostic computer program to the ATM;

B) receiving and storing results of the diagnostic computer program after the ATM runs the program; and

C) returning to the server.

163. (Previously presented) A system, comprising:

a) a server system and a group of associated Automated Teller Machines, ATMs;

b) means for

i) transferring from the server system to a monitor intelligent agent, Monitor Agent,

A) a list of ATMs and

B) a diagnostic computer program; and

ii) causing the Monitor Agent to visit the ATMs on the list in sequence and, at each ATM

A) delivering the diagnostic computer program to the ATM;

B) receiving and storing results of the diagnostic computer program after the ATM

runs the program; and

C) returning to the server,

wherein the Monitor Agent comprises a data packet having a format which includes

1) sender's network address,

2) addresses of the ATMs to be visited,

3) the diagnostic program, and

4) a register to contain data obtained from the ATM.

164. (Previously presented) A system, comprising:

a) a server system and a group of associated Automated Teller Machines, ATMs;

b) means for

i) transferring from the server system to a monitor intelligent agent, Monitor Agent,

A) a list of ATMs and

B) a diagnostic computer program; and

ii) causing the Monitor Agent to visit the ATMs on the list in sequence and, at each ATM

A) delivering the diagnostic computer program to the ATM;

B) receiving and storing results of the diagnostic computer program after the ATM

runs the program; and

C) returning to the server,

wherein the Monitor Agent comprises a data packet having a format which includes

1) sender's network address,

2) addresses of the ATMs to be visited,

3) the diagnostic program, and

4) a register to contain data obtained from the ATM;

c) means for

i) transferring

A) a list of ATMs,

B) names of human service technicians, and

C) technical abilities of the service technicians

from the server system to a service intelligent agent, Service Agent; and

ii) causing the Service Agent to visit the ATMs on the list in sequence and, at each ATM, deliver;

A) the names of the human service technicians, and

B) the technical abilities of the

service technicians.

165. (Previously presented) Apparatus according to claim 163, wherein the format of the Monitor Agent is the same as that of the Service Agent.

166. (Previously presented) Apparatus according to claim 164, wherein different lists of ATMs are delivered to the Monitor Agent at different times.

167. (Previously presented) Method according to claim 166, wherein different diagnostic computer programs are delivered to the Monitor Agent at different times.

168. (Previously presented) A system, comprising:

a) a server system and a group of associated Automated Teller Machines, ATMs;

b) means for

i) transferring from the server system to a monitor intelligent agent, Monitor Agent,

A) a list of ATMs and

B) a diagnostic computer program; and

ii) causing the Monitor Agent to visit the ATMs on the list in sequence and, at each ATM

A) delivering the diagnostic computer program to the ATM;

B) receiving and storing results of the diagnostic computer program after the ATM runs the program; and

C) returning to the server,

wherein the Monitor Agent comprises a data packet having a format which includes

1) sender's network address,

2) addresses of the ATMs to be visited,

3) the diagnostic program, and

4) a register to contain data obtained from the ATM;

c) means for

i) transferring

A) a list of ATMs,

B) names of human service technicians, and

C) technical abilities of the service technicians

from the server system to a service intelligent agent, Service Agent; and

ii) causing the Service Agent to visit the ATMs on the list in sequence and, at each ATM,

deliver;

A) the names of the human service technicians, and

B) the technical abilities of the service technicians;

d) means for detecting an error condition at an ATM;

e) means for examining, at the ATM, the abilities of the human service technicians and selecting a technician to handle the error condition;

f) means for delivering, at the ATM, an address of the technician selected to an alert intelligent agent, Alert Agent, and causing the Alert Agent to contact the technician selected.

169. (Currently amended) ~~Apparatus according to claim 165, and further comprising:~~

A system, comprising:

a) a server system and a group of associated Automated Teller Machines, ATMs;

b) means for

i) transferring from the server system to a monitor intelligent agent, Monitor Agent,

A) a list of ATMs and

B) a diagnostic computer program; and

ii) causing the Monitor Agent to visit the ATMs on the list in sequence and, at each ATM

A) delivering the diagnostic computer program to the ATM;

B) receiving and storing results of the diagnostic computer program after the ATM runs the program; and

C) returning to the server,

~~d)~~ c) means for detecting an error condition at an ATM;

~~e)~~ d) means for examining, at the ATM, the abilities of the human service technicians and selecting a group of technicians to handle the error condition;

~~f)~~ e) means for ranking the technicians in the group at the ATM; and

~~g)~~ f) means for

i) delivering, at the ATM, addresses of the group of technicians to an alert intelligent agent, Alert Agent, and

ii) causing the Alert Agent to contact the technicians in the group in rank order, until a technician is found who agrees to service the error condition

wherein the Monitor Agent comprises a data packet having a format which includes

1) sender's network address,

2) addresses of the ATMs to be visited,

3) the diagnostic program, and

4) a register to contain data obtained from the ATM and

wherein the format of the Monitor Agent is the same as that of the Service Agent.

170. (Previously presented) Apparatus according to claim 169, wherein the Alert Agent, Monitor Agent, and Service Agent are all organized according to a common format.

171. (Previously presented) Apparatus, comprising:

a) a server system and associated Automated Teller Machines, ATMs:

b) means for sending a first type of intelligent agent from the server system to a group of ATMs, which agent obtains diagnostic information from the ATMs;

c) means for sending a second type of intelligent agent from the server system to a group of ATMs, which agent informs the ATMs of the identities of available service technicians; and

d) means for sending a third type of intelligent agent from a malfunctioning ATM to a service technician,

wherein all intelligent agents share a common data format.

172. (Previously presented) Apparatus according to claim 171, wherein the first type of agent returns to the server, and delivers the diagnostic information to the server.

173. (Previously presented) Apparatus according to claim 172, wherein at least one ATM arranges the available technicians in rank order.

174. (Previously presented) Apparatus, comprising:

a) a server system and associated Automated Teller Machines, ATMs:

b) means for sending a first type of intelligent agent from the server system to a group of ATMs, which agent obtains diagnostic information from the ATMs;

c) means for sending a second type of intelligent agent from the server system to a group of ATMs, which agent informs the ATMs of the identities of available service technicians; and

d) means for sending a third type of intelligent agent from a malfunctioning ATM to a service technician,

wherein (1) all intelligent agents share a common data format, (2) the first type of agent returns to the server, and delivers the

diagnostic information to the server, (3) at least one ATM arranges the available technicians in rank order, and (4) the malfunctioning ATM causes the third type of agent to contact available technicians according to the rank order.

175. (Previously presented) Apparatus according to claim 174, wherein the third type of agent stops contacting technicians when a specified response is obtained from technicians contacted.

176. (Previously presented) A method of operating a server system and associated Automated Teller Machines, ATMs, comprising:

a) sending a first type of intelligent agent from the server system to ATMs, which agent

i) obtains data concerning functionality of elements within the ATMs, and

ii) returns to the server system with the data;

b) sending a second type of intelligent agent to ATMs, which agent informs the ATMs of identities of service technicians; and

c) at an ATM, detecting an error condition and, in response, sending a third type of intelligent agent from the ATM to a server in the server system.

177. (Previously presented) A method of operating a server system and associated Automated Teller Machines, ATMs, comprising:

a) sending a first type of intelligent agent from the server system to ATMs, which agent

i) obtains data concerning functionality of elements within the ATMs, and

ii) returns to the server system with the data;

b) sending a second type of intelligent agent to ATMs, which agent informs the ATMs of identities of service technicians; and

c) at an ATM, detecting an error condition and, in response, sending a third type of intelligent agent from the ATM to a server in the server system,

wherein the third type of intelligent agent contains a list of service technicians in rank order, and contacts technicians on the list in rank order, until a specified response is obtained from a technician.

178. (Previously presented) A method of operating a server system connected by a network to Automated Teller Machines, ATMs, comprising:

a) equipping an intelligent agent with

i) network address of a sending server, and

ii) a list of ATMs to visit; and

b) causing the intelligent agent to

i) travel the network and visit ATMs on the list, and

ii) return to the sending server after visiting the ATMs.

179. (Previously presented) Method according to claim 178, and further comprising:

c) causing the agent to run a diagnostic program on the ATMs visited; and

d) record results of the program, and deliver the results to the sending server upon return.

180. (Previously presented) A method of operating a server system and associated ATMs, comprising:

a) maintaining a list of available service personnel in each ATM;

b) using apparatus within an ATM,

i) detecting a fault in the ATM; and

ii) reporting the fault to a service person A on the list.

181. (Previously presented) Method according to claim 180,

and further comprising:

iii) notifying a service person B on the list, if the service person A does not agree to service the fault.

182. (Previously presented) Method according to claim 181, wherein the service personnel are listed on the list in rank order of preference, and the first service person is higher-ranked than the second service person.

183. (Previously presented) Method according to claim 180, and further comprising:

c) updating the list to indicate changes in availability of service personnel.

184. (Previously presented) Method according to claim 180, and further comprising:

c) sending one or more intelligent agents to the ATMs;

d) when an Intelligent agent arrives at an ATM,

i) verifying security of the intelligent agent and

ii) if security is verified, allowing the intelligent agent to perform operations in the ATM.

185. (Previously presented) Method according to claim 184, wherein the operations include updating the list to indicate changes in availability of service personnel.

186. (Previously presented) Method according to claim 184, wherein the operations include retrieving data from the ATM and delivering the data to a destination outside the ATM.

187. (Previously presented) Method according to claim 180, and further comprising:

c) reporting the fault to service person A by launching an intelligent agent onto the network, which delivers a message to a terminal assigned to service person A.

188. (Previously presented) A method of operating a server system and associated ATMs, comprising:

a) querying the ATMs over a network, to obtain information about conditions in the ATMs;

b) based on the information, making predictions as to times when specific maintenance procedures should be performed on the ATMs; and

c) scheduling maintenance personnel to perform the procedures.

189. (Previously presented) Method according to claim 188, wherein the querying is performed by

i) launching an intelligent agent onto the network which visits the ATMs;

ii) verifying security of the intelligent agent at each ATM when the intelligent agent arrives;

iii) if security is verified, allowing the intelligent agent to obtain information from each ATM; and

iv) causing the intelligent agent to carry the information to a site where the predictions are made.

190. (Previously presented) A method of operating a server system and associated ATMs, comprising:

a) transmitting a list of available service personnel in each ATM; and

b) storing the list in each ATM.

191. (Previously presented) Method according to claim 190, wherein an intelligent agent carries the list to the ATMs, one ATM at a time.

192. (Previously presented) Method according to claim 191, wherein each ATM visited by the intelligent agent verifies security

of the intelligent agent and, if security is verified, accepts the list.

193. (Previously presented) A method of operating a server system and associated ATMs which communicate with the server over a network, comprising:

a) maintaining a list of available service personnel in at least one ATM;

b) using apparatus within an ATM which maintains a copy of the list,

i) detecting a fault in the ATM; and

ii) launching an intelligent agent onto the network, which attempts to contact a service person on the list.

194. (Previously presented) Method according to claim 193, wherein the intelligent agent repeatedly contacts different service personnel until a service person agrees to handle the fault.

195. (Previously presented) A system, comprising:

a) a plurality of Automated Teller Machines, ATMs, which communicate with one or more servers; and

b) means for transmitting to the ATMs a list of service personnel who will repair faults in the ATMs, if the ATMs

request repair.

196. (Previously presented) System according to claim 195, wherein the means periodically sends schedules to the ATMs which indicate times of availability of the service personnel.

197. (Previously presented) System according to claim 195, wherein the service personnel are listed in rank order on the list.

198. (Previously presented) System according to claim 195, wherein the list indicates a field of technical expertise for each service person.

199. (Previously presented) Method according to claim 188, wherein the predictions predict at least one time when a component will become non-functional, if service is not performed.